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Assessing oil spill risks in transboundary areas: the importance of science - policy dialogue.

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Abstract

The overall increase in maritime transport, coastal urbanization and the foreseen increase in offshore oil and gas extraction pose serious risks of pollution from hazardous substances for several coastal states and, in particular, in marginal and land surrounded seas. Those seas are often shared by more countries, and therefore a common approach to environmental monitoring and good environmental status achievement and maintenance are recommended to guarantee the protection of the marine environment and allow sustainable development. Within the Mediterranean Sea, the Adriatic and Ionian Seas are bounded by both EU and non-EU countries, which determines a number of implications in terms of implementation of the environmental legal framework; nevertheless, coastal states sharing a marine region or subregion are meant to cooperate to manage marine natural resources and preserve ecosystem services, as well as adopt coordinated efforts in case of pollution accidents.

In order to support a shared and coordinated approach in case of oil spill accidents in some key areas characterized by potential hazards of contaminant dispersion, coexistence of multiple vulnerable environmental and socio-economic aspects as well as transnational relevance, a tool to assess coastal vulnerability and risk to pollution dispersion was implemented, combining multidisciplinary information, hydrodynamic and oil spill modelling, dedicated web GIS application and extensive stakeholder engagement. The assessment of coastal vulnerability and risk of contaminant dispersion are strongly dependent on data and information availability, coherence and reliability, as well as on the different national priorities and economic development levels. The heterogeneity in needs and priorities of the different countries and of the different stakeholders concerning the protection of the sea and its ecosystems requires a tailored, iterative approach that connects stakeholders with the scientific community, in order to provide data and data products that are both efficient and effective for societal needs.

Keywords

oil spills, web gis, stakeholder, risk assessment